

Inter (Part-II) 2021

Physics	Group-II	PAPER: II
Time: 20 Minutes	(OBJECTIVE TYPE)	Marks: 17

Note: Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that question with Marker or Pen ink in the answer-book. Cutting or filling two or more circles will result in zero mark in that question.

1-1- Output wave form of sweep or time base generator is:

- (a) Saw tooth wave ✓ (b) Digital wave
(c) Sinusoidal wave (d) Square wave

2- S.I unit of impedance is:

- (a) Henry (b) Hertz
(c) Ampere (d) Ohm ✓

3- The rest mass energy of an electron positron pair is:

- (a) 0.51 Mev (b) 1.02 Mev ✓
(c) 1.2 Mev (d) 1.00 Mev

4- Binding energy per nucleon is maximum for:

- (a) Helium (b) Iron ✓
(c) Radium (d) Polonium

5- When some dielectric is inserted between the plates of a capacitor, then capacitance:

- (a) Increased ✓ (b) Decreased
(c) Zero (d) Infinity

6- Automatic functioning of street light can be done by the use of:

- (a) Inductor (b) Capacitor
(c) Comparator ✓ (d) Thermistor

7- Kirchhoff's first rule is a manifestation of law of conservation of:

- (a) Mass (b) Energy
(c) Charge ✓ (d) Kinetic energy

- 8- If $R_1 = 10 \text{ K}\Omega$ and $R_2 = 100 \text{ K}\Omega$, then gain of inverting amplifier is:
(a) -11 (b) -10 ✓
(c) 10 (d) 11
- 9- The half-life of uranium -239 is:
(a) 1620 years (b) 3.8 days
(c) 2.5 days (d) 23.5 minutes ✓
- 10- The principle of an electric generator is based upon:
(a) Ampere's law (b) Faraday's law ✓
(c) Coulomb's law (d) Kirchhoff's law
- 11- Coulomb per volt is called:
(a) Ampere (b) Joule
(c) Henry (d) Farad ✓
- 12- The device which allows only flow of A.C. through it, is:
(a) Capacitor ✓ (b) Inductor
(c) Battery (d) Thermistor
- 13- Energy stored in the inductor is in the form of:
(a) Electrical energy (b) Magnetic energy ✓
(c) Kinetic energy (d) Chemical energy
- 14- Very weak magnetic field produced by brain can be detected by:
(a) Compass (b) Metallic needle
(c) Squid ✓ (d) Liquid
- 15- Work done on a charged particle moving in uniform magnetic field is:
(a) Maximum (b) Zero
(c) Minimum (d) Negative ✓
- 16- When platinum wire is heated, it changes to cherry red at temperature:
(a) 500°C (b) 900°C ✓
(c) 1100°C (d) 1300°C
- 17- The value of Rydberg constant is:
(a) $1.0974 \times 10^7 \text{ m}^{-1}$ ✓ (b) $6.02 \times 10^{-34} \text{ m}^{-1}$
(c) $3 \times 10^8 \text{ m}^{-1}$ (d) $1.6 \times 10^{19} \text{ m}^{-1}$